

**Ex. 12**  
**James Mickens CV**

**JAMES W. MICKENS**

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**PROFESSIONAL EXPERIENCE**

<p><i>Harvard University</i></p> <p><i>Massachusetts Institute of Technology</i></p> <p><i>Microsoft Research (Redmond)</i></p>	<p>2019–Present      Gordon McKay Professor</p> <p>2015–2019        Associate Professor</p> <p>Currently teaching CS 161 (Operating Systems) and CS 263 (Systems Security). Performing a variety of research on secure, high-performance distributed systems. Currently advising four PhD students.</p> <p>Fall 2014          MLK Visiting Professor</p> <p>Co-taught 6.858 (Computer Systems Security). Performed research on secure cloud storage and load optimizers for web pages.</p> <p>2008–2015        Researcher, Distributed Systems Group</p> <p>Engaged in a variety of basic and applied research projects, collaborating with product groups to apply my work to real-life scenarios. Served on program committees, organized workshops, and performed other types of academic service. Supervised six interns during their pursuit of summer research projects.</p>
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**EDUCATION**

<p><i>PhD</i></p> <p><i>Master of Science</i></p> <p><i>Bachelor of Science</i></p>	<p>2001–2008        The University of Michigan, Ann Arbor</p> <p>Area: Computer Science and Engineering          Dissertation: <i>Exploiting Availability Prediction in Distributed Systems</i>          Advisor: Prof. Brian NOBLE</p> <p>1997–2001        The Georgia Institute of Technology</p> <p>Area: Computer Science · GPA: 3.97/4.0 · <i>Highest Honors</i>          Certificate in Industrial and Organizational Psychology</p>
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**PUBLICATIONS**

<p><i>USENIX Security</i> 2021</p> <p><i>NSDI</i> 2021</p> <p><i>HotCloud</i> 2020</p> <p><i>P-RECS</i> 2020</p> <p><i>NDSS</i> 2020</p>	<p>X. Han, X. Yu, T. Pasquier, D. Li, J. Rhee, <b>J. Mickens</b>, M. Seltzer, and H. Chen. SIGL: Securing Software Installations Through Deep Graph Learning. Vancouver, B.C., Canada, August 2021.</p> <p>R. Ko, B. Loring, R. Netravali, and <b>J. Mickens</b>. Oblique: Accelerating Page Loads Using Symbolic Execution. Boston, MA, April 2021.</p> <p>V. Gandhi and <b>J. Mickens</b>. Rethinking Isolation Mechanisms for Datacenter Multitenancy. Boston, MA, July 2020.</p> <p>X. Han, <b>J. Mickens</b>, A. Gehani, M. Seltzer, and T. Pasquier. Xanthus: Push-button Orchestration of Host Provenance Data Collection. Stockholm, Sweden, June 2020.</p> <p>X. Han, T. Pasquier, A. Bates, <b>J. Mickens</b>, and M. Seltzer. Unicorn: Runtime Provenance-Based Detector for Advanced Persistent Threats. San Diego, CA, February 2020.</p>
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SOCC 2019	R. Netravali and <b>J. Mickens</b> . Reverb: Speculative Debugging for Web Applications. Santa Cruz, CA, November 2019.
MobiSys 2019	R. Netravali, A. Sivaraman, <b>J. Mickens</b> , and H. Balakrishnan. WatchTower: Fast, Secure Mobile Page Loads Using Remote Dependency Resolution. Seoul, South Korea, June 2019.
NSDI 2019	F. Wang, R. Ko, and <b>J. Mickens</b> . Riverbed: Enforcing User-defined Privacy Constraints in Distributed Web Services. Boston, MA, February 2019.
ManLang 2018	J. Larisch, <b>J. Mickens</b> , and E. Kohler. Alto: Lightweight VMs using Virtualization-aware Managed Runtimes. Linz, Austria, September 2018.
ANRW 2018	R. Ko and <b>J. Mickens</b> . DeadBolt: Securing IoT Deployments. Quebec, Canada, July 2018.
NSDI 2018	R. Netravali, V. Nathan, <b>J. Mickens</b> , and H. Balakrishnan. Vesper: Measuring Time-to-Interactivity for Web Pages. Renton, WA, April 2018.
NSDI 2018	R. Netravali and <b>J. Mickens</b> . Prophecy: Accelerating Mobile Page Loads Using Final-state Write Logs. Renton, WA, April 2018.
HotMobile 2018	R. Netravali and <b>J. Mickens</b> . Remote-Control Caching: Proxy-based URL Rewriting to Decrease Mobile Browsing Bandwidth. Tempe, Arizona, February 2018.
NDSS 2018	F. Wang and <b>J. Mickens</b> . Veil: Private Browsing Semantics Without Browser-side Assistance. San Diego, CA, February 2018.
SysTEX 2017	F. Wang, Y. Joung, and <b>J. Mickens</b> . Cobweb: Practical Remote Attestation Using Contextual Graphs. Shanghai, China, October 2017.
NSDI 2016	R. Netravali, A. Goyal, <b>J. Mickens</b> , and H. Balakrishnan. Polaris: Faster Page Loads Using Fine-grained Dependency Tracking. Santa Clara, CA, March 2016.
NSDI 2016	F. Wang, <b>J. Mickens</b> , N. Zeldovich, and V. Vaikuntanathan. Sieve: Cryptographically-enforced Access Control for User Data in Untrusted Clouds. Santa Clara, CA, March 2016.
SOCC 2015	D. Li, <b>J. Mickens</b> , S. Nath, and L. Ravindranath. Domino: Understanding Wide-Area, Asynchronous Event Chains in Web Applications. Kohala Coast, HI, August 2015.
USENIX ATC 2015	R. Netravali, A. Sivaraman, S. Das, A. Goyal, K. Winstein, <b>J. Mickens</b> , and H. Balakrishnan. Mahimahi: Accurate Record-and-Replay for HTTP. Santa Clara, CA, July 2015.
USENIX HotOS XV	T. Chajed, J. Gjengset, J. van den Hooff, M. F. Kaashoek, <b>J. Mickens</b> , R. Morris, and N. Zeldovich. Amber: Decoupling User Data from Web Applications. Kartause Ittingen, Switzerland, May 2015.
IEEE Symposium on Security and Privacy 2014	<b>J. Mickens</b> . Pivot: Fast, Synchronous Mashup Isolation Using Generator Chains. San Jose, CA, May 2014.
NSDI 2014	<b>J. Mickens</b> , E. B. Nightingale, J. Elson, K. Nareddy, D. Gehring, B. Fan, A. Kadav, V. Chidambaram, and O. Khan. Blizzard: Fast, Cloud-scale Block Storage for Cloud-oblivious Applications. Seattle, WA, April 2014.

<i>FAST 2013</i>	J. R. Lorch, B. Parno, <b>J. Mickens</b> , M. Raykova, and J. Schiffman. Shroud: Enabling Private Access to Large-Scale Data in the Data Center. San Jose, CA, February 2013.
<i>USENIX WebApps 2012</i>	<b>J. Mickens</b> and M. Finifter. Jigsaw: Efficient, Low-effort Mashup Isolation. Boston, MA, June 2012.
<i>USENIX ATC 2012</i>	<b>J. Mickens</b> . Rivet: Browser-agnostic Remote Debugging for Web Applications. Boston, MA, June 2012.
<i>SOSP 2011</i>	<b>J. Mickens</b> and M. Dhawan. Atlantis: Robust, Extensible Execution Environments for Web Applications. Cascais, Portugal, October 2011. <b>Winner of the Audience Choice Award for Best Presentation.</b>
<i>IEEE Symposium on Security and Privacy 2011</i>	B. Parno, J. R. Lorch, J. R. Douceur, <b>J. Mickens</b> , and J. M. McCune. Memoir: Practical State Continuity for Protected Modules. Oakland, CA, May 2011.
<i>USENIX WebApps 2010</i>	<b>J. Mickens</b> . Silo: Exploiting JavaScript and DOM Storage for Faster Page Loads. Boston, MA, June 2010.
<i>NSDI 2010</i>	<b>J. Mickens</b> , J. Elson, J. Howell, and J. R. Lorch. Crom: Faster Web Browsing Using Speculative Execution. San Jose, CA, April 2010.
<i>NSDI 2010</i>	<b>J. Mickens</b> , J. Elson, and J. Howell. Mugshot: Deterministic Capture and Replay for JavaScript Applications. San Jose, CA, April 2010.
<i>CoNEXT 2009</i>	J. R. Douceur, <b>J. Mickens</b> , T. Moscibroda, and D. Panigrahi. ThunderDome: Discovering Upload Constraints Using Decentralized Bandwidth Tournaments. Rome, Italy, December 2009.
<i>USENIX ATC 2009</i>	<b>J. Mickens</b> , J. R. Douceur, B. Bolosky, and B. Noble. StrobeLight: Lightweight Availability Mapping and Anomaly Detection. San Diego, CA, June 2009.
<i>DSN 2007</i>	<b>J. Mickens</b> and B. Noble. Concilium: Collaborative Diagnosis of Broken Overlay Routes. Edinburgh, UK, June 2007.
<i>WiMob 2007</i>	<b>J. Mickens</b> and B. Noble. Analytical Models for Epidemics in Mobile Networks. White Plains, NY, October 2007.
<i>NSDI 2006</i>	<b>J. Mickens</b> and B. Noble. Exploiting Availability Prediction in Distributed Systems. San Jose, CA, May 2006.
<i>WiSE 2005</i>	<b>J. Mickens</b> and B. Noble. Modeling Epidemic Spreading in Mobile Environments. Cologne, Germany, September 2005.

#### CURRENT PROFESSIONAL SERVICE

**Harvard organizations:** Berkman-Klein Center Board of Directors (board member); Embedded EthiCS (Computer Science co-director); Computer Science Diversity Committee (co-chair); FAS Standing Committee on Continuing Education (committee member)

**External organizations:** National Academies' Computer Science and Telecommunications Board Investigative Committee for Responsible Computing Research (committee member); USENIX Committee for Black, African-American, and African Diaspora Inclusion (committee member)

## RECENT CONFERENCE SERVICE

SOSP 2021	Program committee	HotNets 2016	Program committee
NSDI 2021	Co-chair	FAST 2016	Program committee
OSDI 2020	Program committee	SOCC 2015	Program committee
SIGCOMM 2018	Program committee	HotCloud 2015	Program committee
SOSP 2017	Program committee	SOCC 2014	Program committee
SOCC 2017	Program committee	CoNEXT 2014	Program committee
Oakland Security 2017	Program committee	SOSP 2013	Program committee
WWW 2017	Program committee	NSDI 2013	Program committee
OSDI 2016	Program committee	USENIX WebApps 2012	Program committee